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1	US 20060165128 A1	20060727	20	Pilot symbols in communication systems	370/503
2	US 20040184486 A1	20040923	18	Method and system of communications	370/503
3	US 20040081205 A1	20040429	52	Maximum likelihood synchronization for a communications system using a pilot symbol	370/503
4	US 20030031162 A1	20030213	11	Apparatus and method for performing initial cell search in wireless communication systems	370/350
5	US 20020114354 A1	20020822	31	Synchronizing clocks across a communication link	370/503
6	US 20010038674 A1	20011108	110	MEANS AND METHOD FOR A SYNCHRONOUS NETWORK COMMUNICATIONS SYSTEM	375/355
7	US 20010030978 A1	20011018	25	Synchronized transport across non-synchronous networks	370/503
8	US 7003016 B1	20060221	13	Maximum likelihood timing synchronizers for sampled PSK burst TDMA system	375/145
9	US 6967945 B2	20051122	17	Method and system of communications using a pulse transmission protocol	370/350

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1	370/328	Peake; Michael Robert et al.
2		Hethuin, Serge et al.
3		Coulson, Alan James
4	370/509	Chitrapu, Prabhakar R. et al.
5	370/280	Sinha, Pranesh et al.
6	370/503; 375/371	TRANS, FRANCOIS
7	370/401	Holloway, John T. et al.
8	370/514; 375/149; 375/355; 375/364	Hosur; Srinath et al.
9	370/503; 375/354; 455/404. 1; 455/456. 1; 455/502	Hethuin; Serge et al.

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10	US 6944188 B2	20050913	28	Synchronizing clocks across a communication link	370/503
11	US 6904079 B2	20050607	14	Access channel structure for wireless communication system	375/145
12	US 6891792 B1	20050510	15	Method for estimating time and frequency offset in an OFDM system	370/206
13	US 6747996 B2	20040608	24	Synchronized transport across non-synchronous networks	370/503
14	US 6744836 B2	20040601	8	Apparatus, computer readable medium, transmission medium, and method for synchronizing a received signal based on a maximum likelihood principle using a bisection technique	375/362

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10	370/328; 370/350; 370/400; 375/222; 709/203	Sinha; Pranesh et al.
11	370/491; 370/500; 370/510; 370/514; 375/149; 375/364	Hoffmann; John E. et al.
12	370/210; 370/503; 375/260; 375/280; 375/346; 375/362	Cimini, Jr.; Leonard Joseph et al.
13	370/516	Holloway; John T. et al.
14	370/509; 375/341	Fan; Yigang et al.

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15	US 6724847 B1	20040420	11	Feed-forward symbol synchronizer and methods of operation therefor	375/355
16	US 6721267 B2	20040413	14	Time and bandwidth scalable slot for mobile data system	370/206
17	US 6704300 B1	20040309	11	Method and system for acquisition of a time stamped signal	370/350
18	US 6697344 B1	20040224	13	Onboard initial entry processor for facilitating a satellite communication	370/316
19	US 6633590 B1	20031014	8	Method of synchronizing a reference clock of a ground station and a clock of a remote system	370/507

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15	329/345; 370/503; 375/354; 375/362	Kallman; Kurt Albert et al.
16	370/476; 370/510; 375/260; 375/298; 375/364	Hiben; Bradley M. et al.
17	370/509; 455/404. 2	Chen; Xixian et al.
18	370/321; 370/503; 455/12.1; 455/13.2; 455/427	Carrozza; Dominic P. et al.
19	370/503; 375/354; 375/356; 375/362	Garofalo; Giovanni et al.

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20	US 6618452 B1	20030909	67	Burst carrier frequency synchronization and iterative frequency-domain frame synchronization for OFDM	375/343
21	US 6560303 B1	20030506	28	Joint frame, carrier and clock synchronization scheme	375/365
22	US 6493330 B1	20021210	15	CDMA cellular radio transmission system	370/335
23	US 6480479 B1	20021112	14	CDMA cellular radio transmission system	370/335
24	US 6424678 B1	20020723	12	Scalable pattern methodology for multi-carrier communication systems	375/260

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20	370/512; 375/364; 375/369	Huber; Johannes et al.
21	370/509; 370/514	Fan; Yigang et al.
22	370/342; 370/514; 375/325; 455/67.1 3	Miya; Kazuyuki et al.
23	370/342; 370/514; 375/325; 455/63.1	Miya; Kazuyuki et al.
24	370/510; 375/298; 375/364	Doberstein; Kevin G. et al.

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25	US 6411649 B1	20020625	16	Adaptive channel tracking using pilot sequences	375/232
26	US 6400700 B1	20020604	15	CDMA cellular radio transmission system	370/335
27	US 6373858 B1	20020416	12	Burst format and associated signal processing to improve frequency and timing estimation for random access channels	370/476
28	US 6366574 B1	20020402	13	Method and device for recovering synchronization on a signal transmitted to a mobile-telephone receiver	370/350
29	US 6304582 B1	20011016	26	Synchronization system using multiple modes of operation	370/503
30	US 6278752 B1	20010821	7	System and method to prevent error propagation	375/347
31	US 6028852 A	20000222	13	CDMA cellular radio transmission system	370/335

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25	370/512; 370/514; 370/520; 375/342; 375/350; 375/364; 375/368	Arslan; Huseyin et al.
26	370/342; 370/514; 375/325; 455/63.1	Miya; Kazuyuki et al.
27	370/512	Soleimani; Mohammad et al.
28	370/514; 370/516; 375/327	Baissus; Eric et al.
29	375/376	Zhang; Genzao et al.
30	370/509; 370/516; 455/272	Golden; Glenn David et al.
31	370/514; 375/325	Miya; Kazuyuki et al.

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32	US 6002729 A	19991214	12	Method for frame synchronization	375/364
33	US 5949828 A	19990907	11	TDMA system receiver	375/326
34	US 5715240 A	19980203	12	Communication device capable of estimating signal quality without synchronization pattern	370/252
35	US 5706314 A	19980106	10	Joint maximum likelihood channel and timing error estimation	375/340

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32	370/324; 370/350; 370/503; 370/509; 375/343; 375/354; 375/362; 375/365; 375/375	Schmidt; Kurt
33	370/512; 375/375	Izumi; Seiichi
34	370/332; 370/503; 375/354	Borras; Jaime A. et al.
35	348/537; 370/514; 370/520; 375/344; 375/346; 375/355; 375/368	Davis; Mark et al.

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36	US 5652771 A	19970729	8	Time tracking based on a Taylor series of an expected signal	375/364
37	US 5428647 A	19950627	13	Method and apparatus for synchronizing a received signal in a digital radio communication system	375/366

	Current XRef	Inventor
36	348/536; 370/509; 370/514; 375/366; 375/368	Davis; Mark et al.
37	370/350; 370/513; 375/232; 375/343; 375/362	Rasky; Phillip D. et al.

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1	US 20030156672 A1	20030821	21	Frame synchronization and detection technique for a digital receiver	375/365
2	US 20030112911 A1	20030619	11	Method and apparatus for synchronising receivers	375/365
3	US 7003016 B1	20060221	13	Maximum likelihood timing synchronizers for sampled PSK burst TDMA system	375/145
4	US 6947475 B2	20050920	19	Method and apparatus for estimating channel characteristics using pilot and non-pilot data	375/148
5	US 6917644 B2	20050712	34	Spread spectrum receiver with multi-path correction	375/142
6	US 6904079 B2	20050607	14	Access channel structure for wireless communication system	375/145

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1	375/329; 375/343	O'Shea, Deirdre et al.
2	375/344; 375/368	Barton, Stephen Kingsley et al.
3	370/514; 375/149; 375/355; 375/364	Hosur; Srinath et al.
4	370/206; 375/130; 375/365	Sendonaris; Andrew et al.
5	370/320; 370/335; 370/515; 375/150; 375/343; 375/364	Cahn; Charles R. et al.
6	370/491; 370/500; 370/510; 370/514; 375/149; 375/364	Hoffmann; John E. et al.

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7	US 6850582 B2	20050201	22	Frame synchronization and detection technique for a digital receiver	375/365
8	US 6768780 B1	20040727	18	Non-data aided maximum likelihood based feedforward timing synchronization method	375/355
9	US 6721267 B2	20040413	14	Time and bandwidth scalable slot for mobile data system	370/206
10	US 6693983 B1	20040217	14	Method and system for detection of short digital radio messages	375/341
11	US 6618452 B1	20030909	67	Burst carrier frequency synchronization and iterative frequency-domain frame synchronization for OFDM	375/343
12	US 6590941 B2	20030708	12	Semi-NDA frequency correction at the receiving end in a packet transmission system	375/316
13	US 6560303 B1	20030506	28	Joint frame, carrier and clock synchronization scheme	375/365
14	US 6424678 B1	20020723	12	Scalable pattern methodology for multi-carrier communication systems	375/260

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7		O'Shea; Deirdre et al.
8	375/365	Lakkis; Ismail et al.
9	370/476; 370/510; 375/260; 375/298; 375/364	Hiben; Bradley M. et al.
10	375/340; 375/344; 375/365	Moher; Michael L. et al.
11	370/512; 375/364; 375/369	Huber; Johannes et al.
12	375/329; 375/365	Legrand; Delphine et al.
13	370/509; 370/514	Fan; Yigang et al.
14	370/510; 375/298; 375/364	Doberstein; Kevin G. et al.

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15	US 6411649 B1	20020625	16	Adaptive channel tracking using pilot sequences	375/232
16	US 6181755 B1	20010130	16	Receiver synchronisation in idle mode	375/362
17	US 6104237 A	20000815	10	Method for estimating phase in demodulator	329/307
18	US 6031880 A	20000229	10	Carrier recovery in communications system	375/326

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15	370/512; 370/514; 370/520; 375/342; 375/350; 375/364; 375/368	Arslan; Huseyin et al.
16	375/365	Junell; Jari
17	329/308; 375/327; 375/329; 375/365; 375/376	Mabuchi; Tetsuo
18	375/365	Li; Yong et al.

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19	US 6002729 A	19991214	12	Method for frame synchronization	375/364
20	US 5848104 A	19981208	18	Demodulator of receiver used for communications	375/324
21	US 5818889 A	19981006	9	Generation of phase shifted clock using selected multi-level reference clock waveform to select output clock phase	375/364

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19	370/324; 370/350; 370/503; 370/509; 375/343; 375/354; 375/362; 375/365; 375/375	Schmidt; Kurt
20	375/227; 375/326; 375/344; 375/345; 375/365; 455/245. 1	Ishizu; Fumio
21	331/45; 363/148	Cook; John Wolsey

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22	US 5809083 A	19980915	15	Differentially encoded pilot word system and method for wireless transmissions of digital data	375/285
23	US 5659573 A	19970819	16	Method and apparatus for coherent reception in a spread-spectrum receiver	375/142
24	US 5654982 A	19970805	15	Apparatus and method for determining carrier frequency offset and timing frequency offset for data transmission and reception	375/222
25	US 5652771 A	19970729	8	Time tracking based on a Taylor series of an expected signal	375/364
26	US 5625652 A	19970429	25	Timing recovery controller and method for adjusting the timing of synchronizing windows in a PSK demodulator	375/355
27	US 5524127 A	19960604	24	Unique word detector and method for detecting a unique word within one of several windows offset in time	375/368
28	US 5428647 A	19950627	13	Method and apparatus for synchronizing a received signal in a digital radio communication system	375/366

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22	370/500; 375/254; 375/296; 375/346; 375/365	Wright; Andrew S.
23	375/355; 375/365	Bruckert; Eugene J. et al.
24	375/364	Goodson; Richard L. et al.
25	348/536; 370/509; 370/514; 375/366; 375/368	Davis; Mark et al.
26	375/329; 375/365	Petranovich; James E.
27	375/363	Petranovich; James E.
28	370/350; 370/513; 375/232; 375/343; 375/362	Rasky; Phillip D. et al.

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29	US 4608703 A	19860826	19	Synchronization detection system for data transmission	375/365
30	US 4520493 A	19850528	15	Adaptive recursive frequency offset tracking system	375/365
31	US 3766315 A	19731016	24	METHOD AND APPARATUS FOR A SINGLE CHANNEL DIGITAL COMMUNICATIONS SYSTEM	375/365

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29	375/231; 375/261	Kaga; Mitsuru et al.
30	329/319; 375/327	Heard; Charles M. et al.
31	375/362	Low; George M. Deputy Administrator of the National Aeronautics and Space et al.